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ABSTRACT:

This report presents details of stress and failure analysis of a filament wound glass fiber reinforced plastic pressure vessel, which was carried out to validate its design. For this purpose finite element modeling and analysis was done to predict the stresses in the constituent plies. Failure analysis was performed using the **TSAI-HILL** criterion. General purpose finite element analysis software NASTRAN in conjunction with the pre-processor **FEMGEN** was used for the analysis.